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[X] PROVISIONAL APPLICATION FOR PATENT COVER SHEET
under 37 CFR 1.53(c)
Inventor(s) Name(s): *ph* Address(es):
Steven Crockett Columbia, Maryland
Title of the Invention:
"NO-SEAL" FLUIDIC NOZZLE MANUFACTURING METHOD

[X] 1 Pages of Specification.
[X] 1 Sheet of Drawing(s) depicting Figures 1 - 5
[X] Filing fee (\$75.00) (Check # 9732)

Atty. Docket No. 3178-PA-Z

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PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a **PROVISIONAL APPLICATION FOR PATENT** under 37 CFR 1.53(c)

Atty. Docket No. 3178-PA-Z

A.	Inventor(s) Name(s): Steven Crockett	Address(es): Columbia, Maryland
B.	Title of the invention: "NO-SEAL" FLUIDIC NOZZLE MANUFACTURING METHOD	
C.	The correspondence address, name and registration number of the attorney for this provisional application is: Jim Zegeer, Esq. Suite 108 801 North Pitt Street Alexandria, VA 22314	
D.	Enclosed Application Parts (check all that apply) <input checked="" type="checkbox"/> <u>1</u> Pages of Specification. <input checked="" type="checkbox"/> <u>1</u> Sheet of Drawing(s) depicting Figures 1 - 5 <input type="checkbox"/> <u> </u> Other	
E.	Method of Payment of Filing Fees for this Provisional Application for Patent <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. <input checked="" type="checkbox"/> A check or money order is enclosed to cover the filing fees. (\$75.00) <input type="checkbox"/> The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account No. 26-0090. <input checked="" type="checkbox"/> Any additional fee required to effect the proper and timely filing of this Provisional Application may be charged to Deposit Account No. 26-0090.	
F.	The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government. <input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____	

Respectfully submitted,

Jim Zegeer, Registration No. 18,957
Attorney for Applicant

Date March 6, 2001

A "No-Seal" Fluidic Nozzle
Manufacturing Method

Inventor: Steven Crockett

Fluidic nozzles have been used in a variety of fluid dispersal applications such as oral irrigators, massaging shower heads, windshield washers and defrosters, etc. In order to function properly, fluidic oscillators need to have proper sealing so as not to cause leaking across flow channels. A typical construction for the fluidic oscillator has been to fabricate the fluidic circuit on one surface and seal it with another surface. It is obvious that the sealing surfaces need to match and be flat. These requirements place constraints on the design and the manufacturing process.

A novel way to avoid some of the above requirements is described in the present concept, shown on the attached drawing. The method splits the fluidic circuit, transverse to the flow direction, in the interaction region, shown on the attached drawing. The channels are designed so that there is no die-lock and the tool halves can be separated. The technique allows the body of the fluidic circuit to be molded as a core without any seamlines, negating the need for assembling two halves of a fluidic circuit as done in prior art. The assembly work is now involved with joining the front half of the fluidic, now formed as another core, to the rear half of the fluidic and also joining the two inertance plates to the body of the fluidic. Both these actions can be considered external to the main part of the fluidic (power nozzle-control port area). The method also allows for the same fluidic to be assembled with different inertance plates, resulting in different operating frequencies. Likewise the fluidic can be paired with different exit throats, resulting in many different output spray angles.

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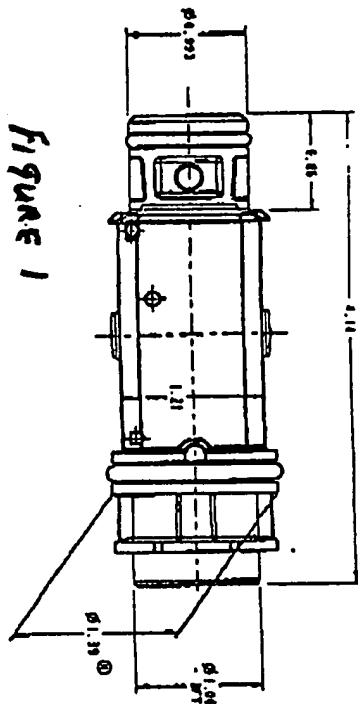


Figure 1

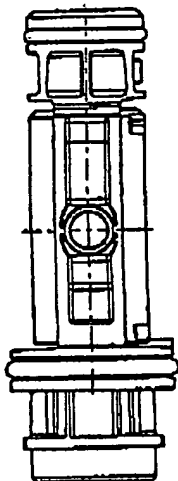


Figure 2

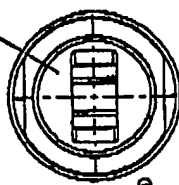
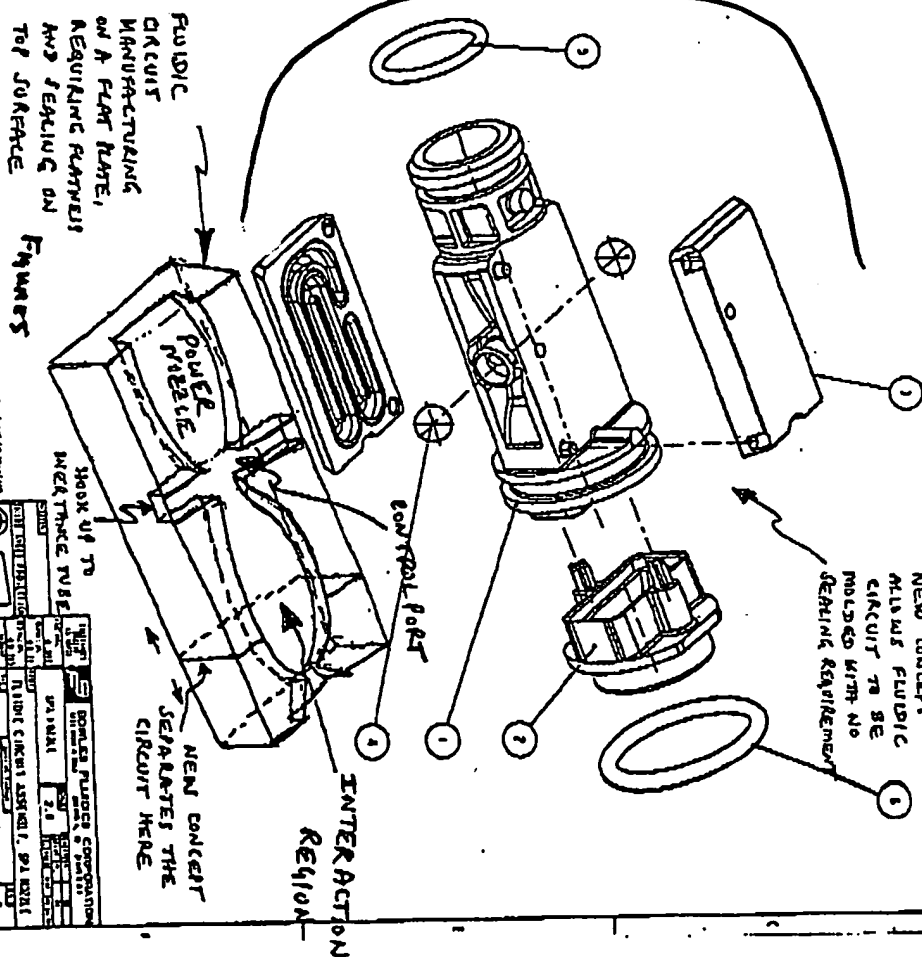


Figure 3

WHITE TISSUE
THIS TAKES

Figure 4



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